

BGYCT-133

ASSIGNMENT BOOKLET

Bachelor's Degree Programme (BSCG)

CRYSTALLOGRAPHY, MINERALOGY AND ECONOMIC GEOLOGY

Valid from 1st January, 2020 to 31st December, 2020

It is compulsory to submit assignment prior to filling Examination form



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068**

(2020)

Dear Student,

Please read the section on assignments in the Programme Guide for B. Sc. that the University sent to you after your enrolment. A weightage of 30 percent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment (TMA)** for this course. The assignment is in this booklet, and it consists of two parts, Part A and B. The total marks of all the parts are 100, of which 35% are needed to pass it.

Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your TMA answer sheet, please write the details exactly in the following format:

ENROLLMENT NO.:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT CODE.:

STUDY CENTRE (NAME & CODE): **DATE:**

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Solve Part A and Part B of this assignment, and **submit the complete assignment answer sheets containing Parts A and B within the due date.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within as per the schedule. **Answer sheets received after the due date shall not be accepted.**
We strongly suggest that you retain a copy of your answer sheets.
- 7) This assignment is **valid from 1st January, 2020 to 31st December, 2020.** If you have failed in this assignment or fail to submit it by 31st September 2020 or the date as specified by the University, then you need to get the assignment for the year 2021, and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the examination form for this course** until you have submitted this assignment.

For any academic queries about this course, please contact: meenalmishra@ignou.ac.in, bdeshmukh@ignou.ac.in.

We wish you good luck.

Tutor Marked Assignment
CRYSTALLOGRAPHY, MINERALOGY AND ECONOMIC GEOLOGY

Course Code: BGYCT-133
Assignment Code: BGYCT-133/TMA/2020

Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it. Write all answers in your own words; do not copy from the course material.

Part A

1. Write short notes on the following:
 - a) Plane of Symmetry (5)
 - b) Nesosilicate (5)
2. Describe the physical properties of minerals belonging to mica group. (10)
3. Explain briefly the Early magmatic processes of ore formation. (10)
4. Discuss the Indian occurrences of coal. Add a map showing their spatial distribution. (10)
5. Discuss the parts and working of petrological/polarising microscope with the help of neat well labelled diagram. (10)

Part B

6. Discuss the crystallographic axes, symmetry elements and forms of Normal class of cubic/isometric crystal system with the help of neat well labelled diagram. (10)
7. Differentiate the following :
 - a) Parallel extinction and inclined extinction (5)
 - b) Carlsbad twinning and polysynthetic twinning (5)
8. What do you understand by cleavage? Discuss different types of cleavages present in minerals when observed in hand specimens. (10)
9. Define crystal parameters and discuss parameter system of Weiss and Index system of Miller. (10)
10. Write short notes on the following:
 - a) Calcite in thin section (5)
 - b) Minerals used in refractory industries (5)